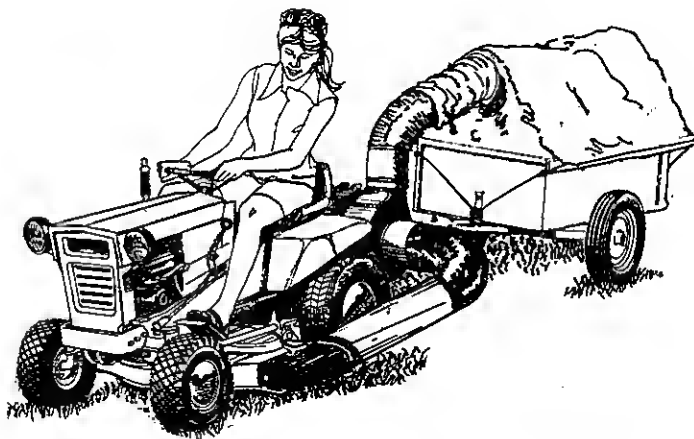


# VACUUM COLLECTOR

## ENGINE DRIVEN

MFG. NO. 1690031 Roving Nozzle  
MFG. NO. 1690029 Vacuum Collector Adapter, 36"  
MFG. NO. 1690025 Vacuum Collector (Engine)  
MFG. NO. 1600395 Dump Cart Cover  
MFG. NO. 1690028 Vacuum Collector Adapter, 42"  
MFG. NO. 1600236 Dump Cart, 1000 lb.



# OPERATOR'S MANUAL

## PROTECT YOURSELF AND OTHERS

- **Know the controls and how to stop quickly – READ THE OWNER'S MANUAL.**
  - Do not allow children or young teenagers to operate vehicle or adults to operate it without proper instruction.
  - Do not carry passengers. Keep children and pets a safe distance away.
  - Clear work area of objects which might be picked up and thrown.
  - Disengage all clutches and shift into neutral before starting engine.
  - Disengage power to implement (s) and stop engine before leaving operator position.
  - Disengage power to implement (s) and stop engine before making any repairs or adjustments.
  - Disengage power to implement (s) when transporting or not in use.
  - Take precautions, such as disengaging power take-off, lowering implements, shifting into neutral, setting parking brake, stopping engine and removing key when leaving vehicle unattended.
  - Don't stop or start suddenly when going uphill or downhill.
  - Reduce speed on slopes and in sharp turns to prevent tipping or loss of control.
  - Stay alert for holes in terrain and other hidden hazards.
  - Use care when pulling loads or using heavy equipment.
    - A. Use only approved drawbar hitch points.
    - B. Limit loads to those you can safely control.
    - C. Don't turn too sharp, and use care when backing.
    - D. Use counterweight (s) or wheel weights when suggested in owner's manual.
- Watch out for traffic when crossing or near roadways.
- When using any attachments, never direct discharge of material toward bystanders nor allow anyone near vehicle while in operation.
  - Handle gasoline with care – it is highly flammable.
    - A. Use approved gasoline container.
    - B. Never remove cap or add gasoline to a running or hot engine or fill fuel tank indoors. Wipe up spilled gasoline.
    - C. Replace gasoline cap securely.
    - D. Open doors if engine is run in garage -- exhaust gasses are dangerous.
  - Keep vehicle and attachments in good operating condition and keep safety devices in place. Use guards as instructed in owner's manual.
  - Do not operate equipment when barefoot or wearing open sandals. Always wear substantial footwear.
- Do not put hands or feet near or under rotating parts. Keep clear of discharge opening at all times.
  - Before cleaning, inspecting, adjusting, or repairing the tractor or any attachments stop the engine, remove the ignition key (electric start models) and be sure all blades and other moving parts have stopped.
  - Stop blade (s) when crossing gravel drive, walks or roads.
  - After striking a foreign object stop the mower and remove the ignition key. Thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower.
  - If your equipment should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
  - Do not run the engine indoors.
  - Look to be sure that children are not behind the tractor, before backing up.
  - When mowing with a tractor mounted mower, mow up-and-down on slopes, never across or horizontally. To prevent the danger of overturning, exercise extreme caution when stopping, starting or changing direction.
  - Check blade and engine mounting bolts for proper tightness at frequent intervals.
  - Keep all nuts, bolts, and screws tight to be sure equipment is in safe working condition.
  - Never store equipment with gasoline in the tank inside of a building where fumes may reach an open flame or spark. Allow engine to cool before storing in any enclosure.
  - To reduce fire hazard keep engine free of grass, leaves or excessive grease.
  - Never operate any attachment without all guards, deflectors, and other protective covering in place.
  - Keep the area of operation clear of all persons, particularly small children, and pets.
  - Check fuel before starting engine. Do not fill gasoline tank when engine is running or while engine is still hot. Wipe off any spilled gasoline before starting engine. Do not smoke when fueling engine or around open gasoline containers.
  - Mow only in daylight or in good artificial light.
  - Do not change engine governor, settings or overspeed engine.

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## ASSEMBLING VACUUM COLLECTOR TO TRACTOR

1. Remove deflector from mower housing.
2. From inside mower housing, install a 5/16 inch carriage bolt, lockwasher, and hex nut (Figure 1) finger tight through top hole of housing.
3. From inside mower housing, secure 3/8 inch carriage bolt, spacer, flat washer, and hex nut (Figure 1) in front hole of housing.

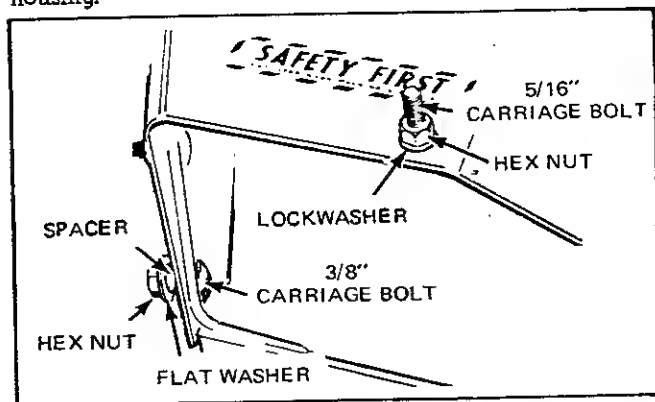


FIGURE 1

4. Attach vacuum collector adapter to mower housing by hooking adapter between spacer and flat washer (Figure 1). Adjust position of adapter and tighten both front and top nuts securely. Install a flanged wing nut on top mounting screw (Figure 2).

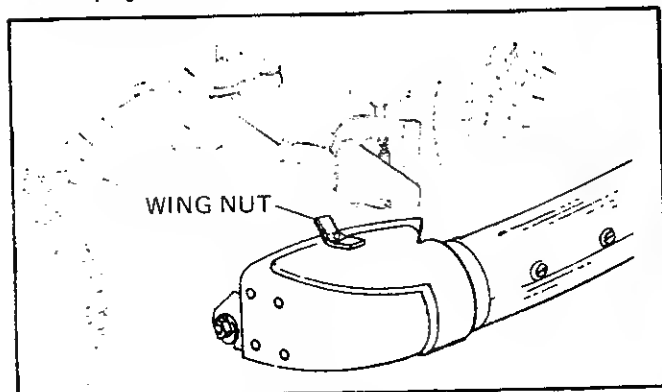


FIGURE 2

5. Remove the drawbar bracket bolts from the rear support plate on the transmission. Place the hitch plate between the drawbar bracket and the support with the notches up. Secure with the 3/8-16 x 1-1/2 in. capscrews, nuts and lockwashers provided. (See Figure 3).

6. Install the engine and blower assembly on the tractor. Tilt it back and engage the lower frame rod in the hitch slots. Tilt it forward to align the blower frame holes with the mating holes in the seat support. Insert the long pin and secure with two spring clips. (See Figure 4).

7. Attach the hose deflector plate to the top of the blower housing. The deflector fits on the outside of the blower outlet. Secure with the two No. 10 self-tapping screws. (See Figure 5).

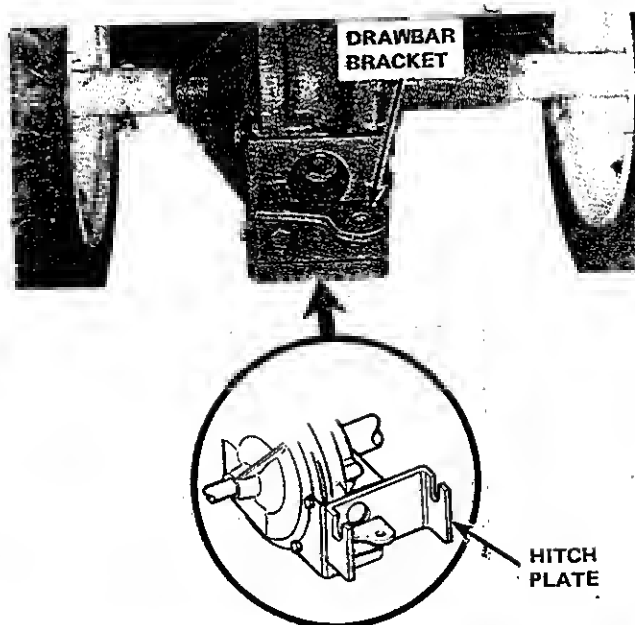


FIGURE 3

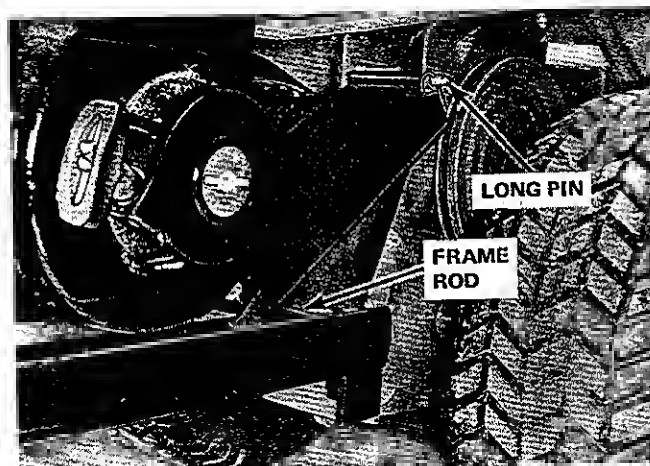


FIGURE 4



FIGURE 5

8. Be sure intake tube ends are secured together with six groups of attaching parts consisting of a Phillips head screw, two flat washers, a lockwasher, and a hex nut each. The end of the intake tube going over the adapter should have the Phillips head screw going through the hole from the inside of the tube. The remainder of the screws are to be installed from the outside of the tube.

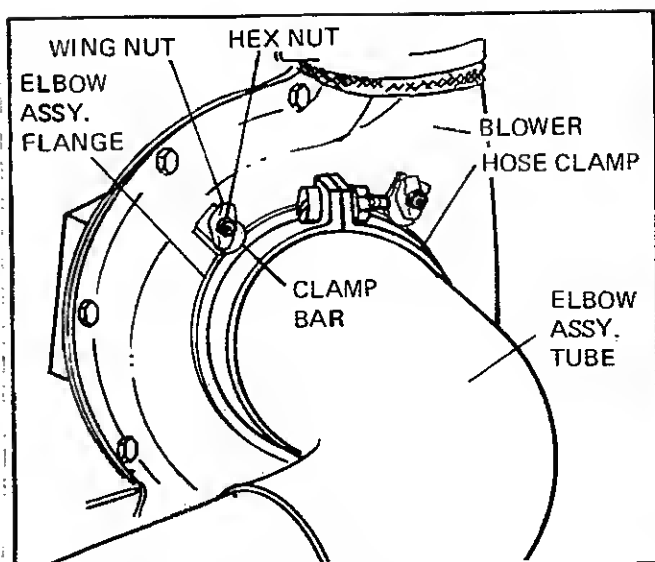


FIGURE 6

9. Install one end of intake tube over adapter and insert other end into elbow assembly.
10. Install elbow assembly flange on blower and secure flange to elbow tube with hose clamp, machine screw, lockwasher, and nut (Figure 6). Be sure to tighten hose clamp securely.
11. Install six inch outlet hose over blower deflector against blower housing. Tighten six inch hose clamp around hose at housing. Install other end of outlet hose in cart cover nozzle and secure it with lock belt.

### OPERATION

1. Position blower engine muffler so exhaust holes are directed away from engine (Figure 7).
2. Pull engine choke plunger out to **CHOKE** position (Figure 8).
3. Pull throttle knob all the way out.
4. Grasp recoil starter handle firmly in your right hand and pull sharply straight out until engine starts. (Figure 8) After the engine starts, return choke or plunger to **OFF** position. If the engine fails to start after four or five pulls, it may be flooded. Return the choke lever or plunger to **OFF** position and pull the starter handle to clear the excess fuel.

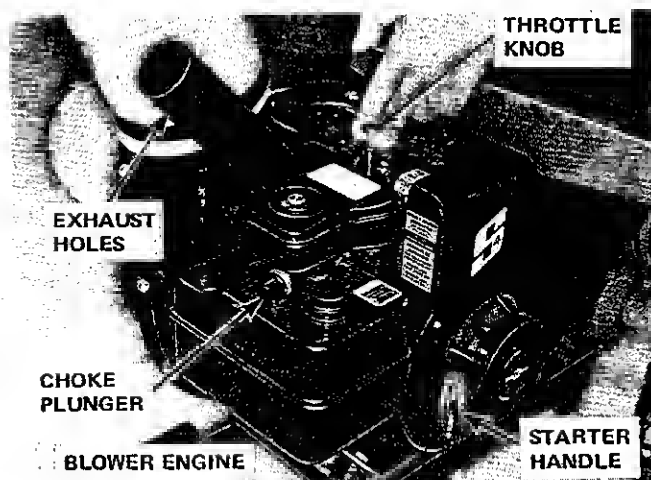


FIGURE 7

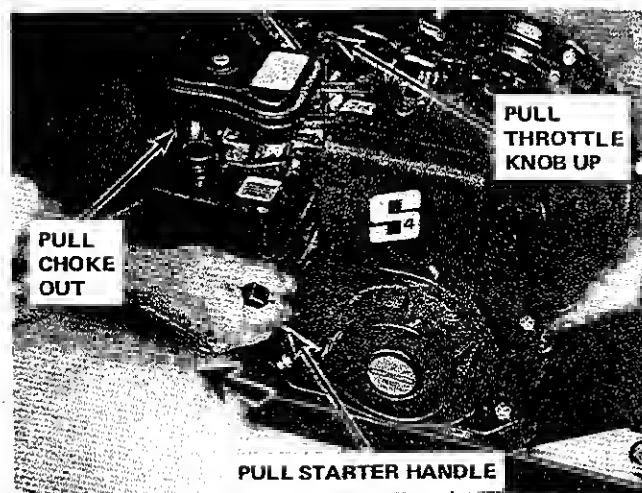


FIGURE 8

5. Engage the mower and run the tractor at about three fourths throttle. Under wet conditions or when collecting thick, heavy material, run at slower ground speed (first or second gear) and full blower engine speed to increase vacuum.
6. When collecting leaves and tall grass, raise the mower to highest cutting height on the first pass, then lower it for the second pass.
7. In wet and extremely high grass it may be necessary to use only half the width of the mower to prevent the hoses from clogging up. Check the hoses and blower housing periodically to make sure the material does not accumulate, blocking the flow to the cart.
8. To stop the engine, push the throttle knob straight down all the way.
9. After operating, be sure to clean out the hoses and the cart thoroughly, especially at the cover sleeve connection.

### MAINTENANCE

#### BEFORE OPERATION

Engine service: Service the blower, for the season it is to be used, according to the manufacturers recommendations. In addition, check to be sure it is filled with a good quality motor oil of grade MS.

Above 40° F - SAE-30

Below 40° F - SAE 5W-20

Fill the fuel tank with clean, fresh leaded or non-leaded "regular" grade automotive gasoline.

#### EVERY 25 HOURS

Follow the Briggs and Stratton manual and change the oil in the engine crankcase.

**NOTE:** When changing engine oil be sure the funnel and tube are free of dirt. Dirt in the oil will shorten engine life.

#### STORAGE

Remove the entire cart cover and place it where air will circulate around it. This will prevent rotting of the fabric.

## TROUBLESHOOTING

If leaves and grass are not being completely picked up, check the following:

1. Run the blower engine at full engine speed.
2. Run the tractor at slower ground speed (first gear).
3. Check all hose connections to be sure they are tight.

If the hoses become plugged, check the following:

1. Grass may be too high or wet, use only half the mower width.
2. Run the tractor in a lower gear.
3. Raise the mower adjustment for the first pass, lower it to make a second pass.

### ROVING VACUUM NOZZLE (Mfg. No. 1690031)

The nozzle attaches to the blower inlet in place of the hose from the mower.

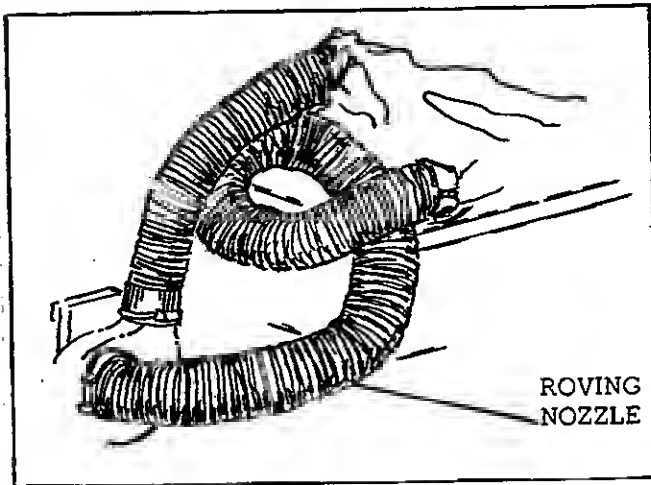


FIGURE 9

### WARNING

When using the roving nozzle, be sure that the mower blades **DO NOT** rotate. Mower must be completely disengaged on tractor and tractor engine shut off.

### ASSEMBLING NOZZLE TO BLOWER

1. Install the mounting flange and clamp on the plain end of the hose. Tighten the clamp screw securely. (Figure 10).
2. Install the hose handle clamps the desired distance from the pickup end of the hose and attach the handle. (Figure 11).
3. Attach the flanged end of the roving nozzle to the blower housing, seating the flange fully in the notches. (Figure 10).

## DUMP CART (Mfg. No. 1600236)

### ASSEMBLY (Figure 13)

1. Secure both wheel and tire assemblies on axle assembly with two 3/4-inch flat washers and 1-1/2-inch long cotter pins.
2. Secure axle assembly to frame assembly with two 5/16-18 x 1-3/4-inch capscrews and 5/16-18 locknuts. Be sure axle curve faces upwards.
3. Secure frame assembly to tongue assembly with two 3/8-16 x 2-1/4-inch capscrews, 3/8-inch lockwashers, and 3/8-16-inch nuts. Be sure front end of tongue is lower than rear.
4. Secure box pivot assembly to rear of frame assembly with 1-1/2-inch long pivot pin and hairpin clip.
5. Place trailer body on its end gate and secure body to pivot box assembly as illustrated in Figure 13.
6. Secure box catch clevis to tongue as illustrated in Figure 13.
7. Place box guide plate inside trailer body with grooved end extending through slot in body floor. Position box catch plate outside trailer body with bent end downward. Secure positioned plates to trailer body with two 3/8-16 x 1-inch capscrews, 3/8-inch lockwashers, and 3/8-16-inch nuts.
8. Insert 3/8-inch diameter by 2-inch long pin and hairpin clip in tongue yoke. These parts are used to attach dump cart to power unit.

### LUBRICATION

The dump cart has two standard size grease fittings, one on each wheel, which require occasional lubrication with general purpose automotive grease. Before lubricating, wipe each grease fitting with a rag to prevent dirt and grit from being carried into the bearings with the new grease. Lubricate all pivot points and the box catch clevis with SAE-10 oil frequently.

### TIRES

The tires of the dump cart are inflated for shipping with pressure in excess of the normal amount. For normal lawn use, deflate the tires until a pressure of 6-8 lbs. per square inch is reached. When carrying heavy loads, or when used with the vacuum collector, it will be necessary to increase this pressure to 14-16 lbs. per square inch to prevent damage to tires or wheels.

### OPERATION

Attach the cart tongue to the tractor with the remaining 2-inch long pin and spring clip.

The cart is designed to carry 1,000 lbs. THE AXLE IS BENT UP SLIGHTLY IN THE CENTER TO COMPENSATE FOR HEAVY LOADS. With its patented dump feature the box can be unlatched without detaching from the tractor and turned completely upside down by tilting up and back to empty all contents without shoveling. The tail gate is removable by pulling it straight up.

### MAINTENANCE

The grease fittings on the wheels require only occasional lubrication with general purpose automotive grease. Before greasing, wipe the fittings clean. Apply light oil frequently to all pivot points and the front latch.

### SPECIFICATIONS

CAPACITY	MATERIAL: Heavy Gauge Reinforced Steel
	WEIGHT: 1,000 lbs.
	VOLUME: 7 cu. ft. Struck 10 cu. ft. Heaped
BOX SIZE	LENGTH: 39 Inches
	WIDTH: 26 Inches
	HEIGHT: 12 Inches
TIRES	TYPE: Pneumatic
	SIZE: 4.80/4.00 x 8
	SHIPPING WEIGHT: 112 lbs.

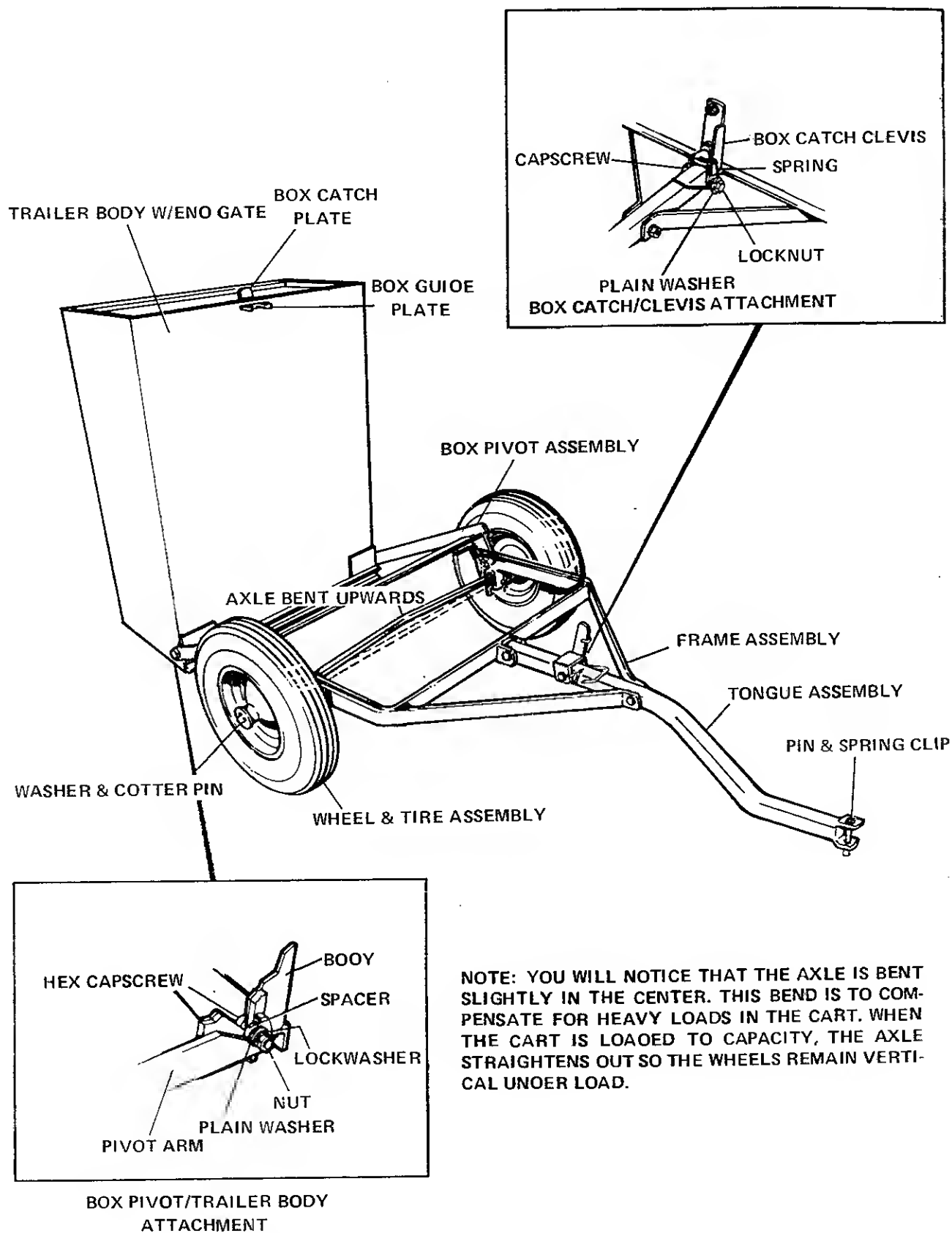


FIGURE 13



1. Hang two side panels on outer sides of cart.
2. Insert side and end reinforcing bars in cart cover with side bar bends pointing inward.
3. Align reinforcing bar holes and flat washer. From inside, insert pin through holes and secure bars and washer with a hex nut (Figure 14). Repeat procedure for all four corners.

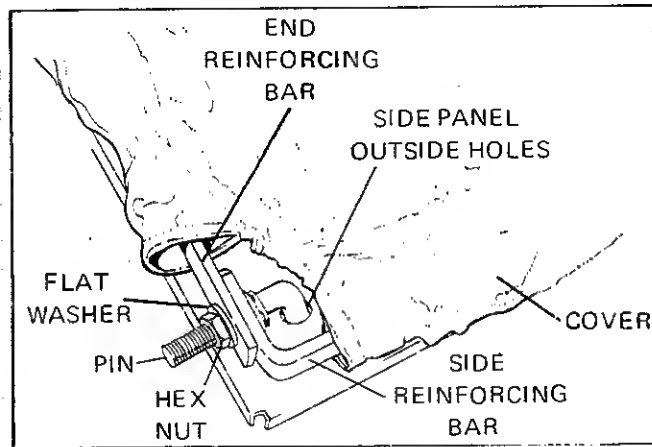


FIGURE 14

4. Secure belt stop to inside front of side panel with two flat washers (one above and one below side panel), special washer, 3/4 inch long capscREW, and locknut (Figure 15). Position belt stop at angle illustrated. Repeat procedure for remaining front corner.

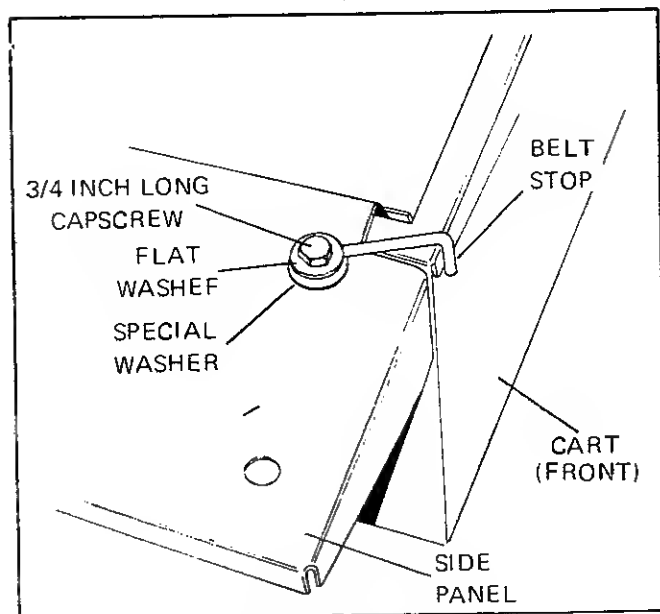


FIGURE 15

5. Secure bracket to inside rear of side panel with two special washers (above side panel), a flat washer (underside panel), a 3/4 inch long capscREW, and locknut (Figure 16). Position side panel bracket at angle illustrated. Repeat procedure for remaining rear corner.

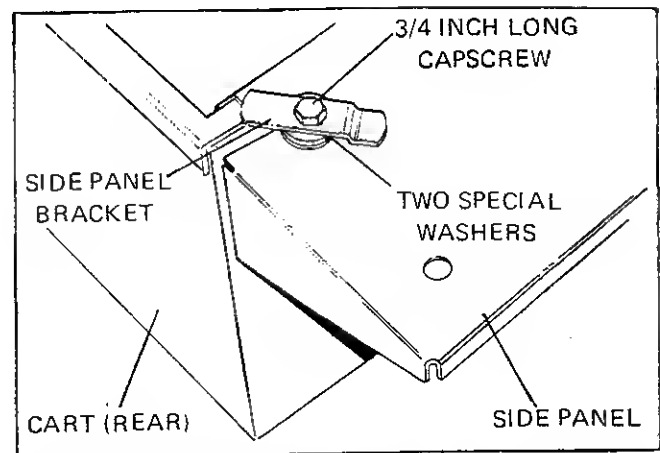


FIGURE 16

6. Lay cover assembly on cart with canvas side flaps inside and cover nozzle toward cart drawbar. Be sure pins are inserted completely into side panel outside holes (Figure 14).
7. Insert each bail through slotted hole in lever and center the lever on the bail (Figure 17).

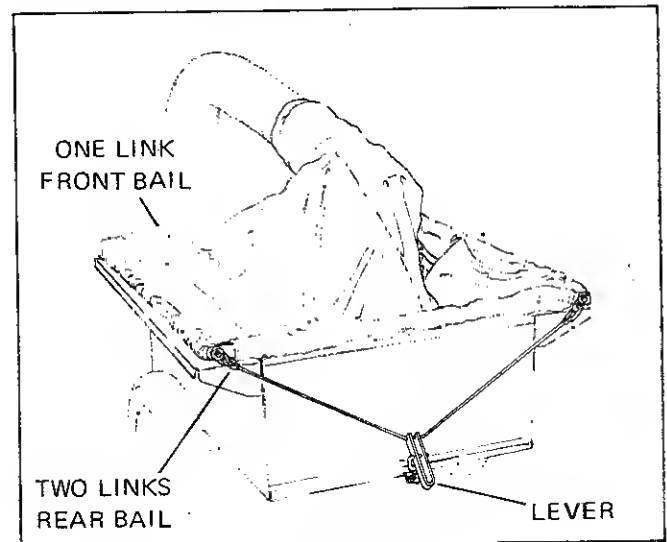


FIGURE 17

8. Attach one link to each end of one bail and two links to each end of other bail (Figure 17). The bail with two links each will be placed later at rear of cart and the bail with one link each at the front.
9. Secure bracket to front of cart with 1-1/4 inch long capscREW (Figure 18).

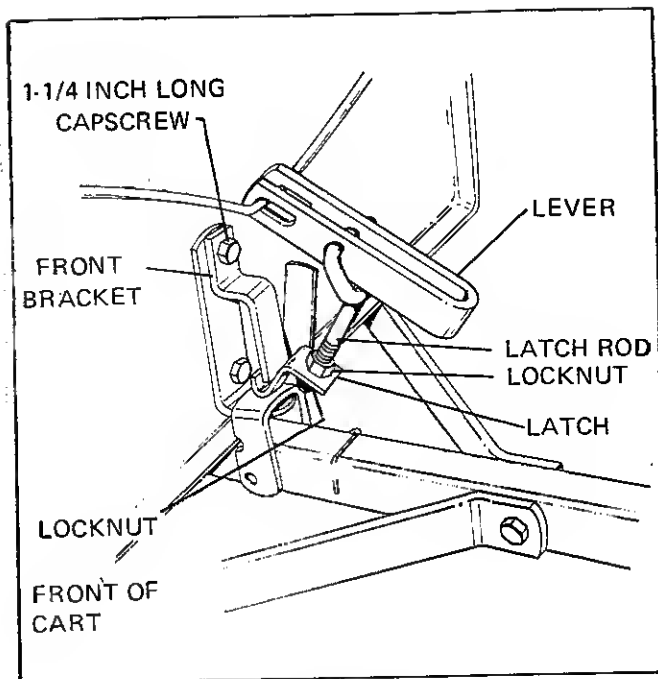


FIGURE 18

10. Secure the loose link of rear bail and link assembly (two links on each end of bail) to rear pins with two flat washers and locknuts. Repeat same procedure for front bail and link assembly (one link on each end of bail).

11. Insert rear latch rod through lever holes and secure it with a cotter pin (Figure 19). Install locknut, latch, and locknut on latch rod. With lever in closed position, adjust latch until it is securely hooked under cart. Repeat procedure for front side with latch tight under bracket (Figure 18).

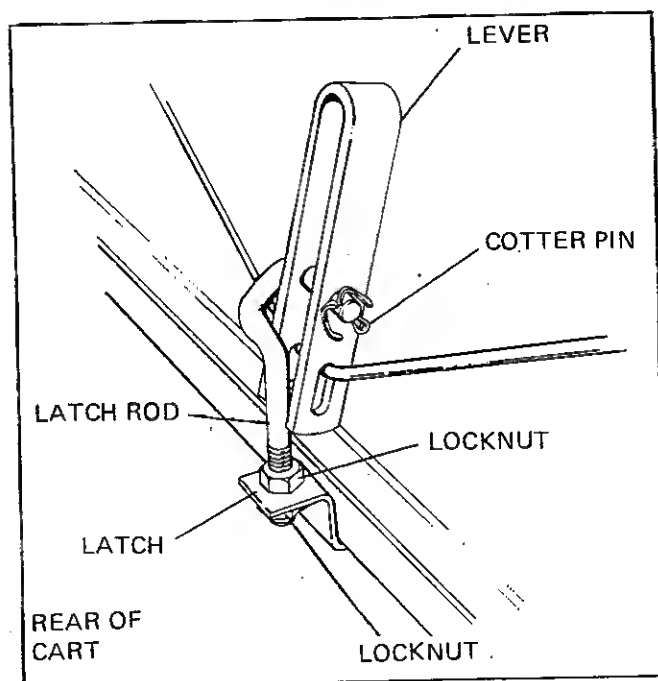


FIGURE 19

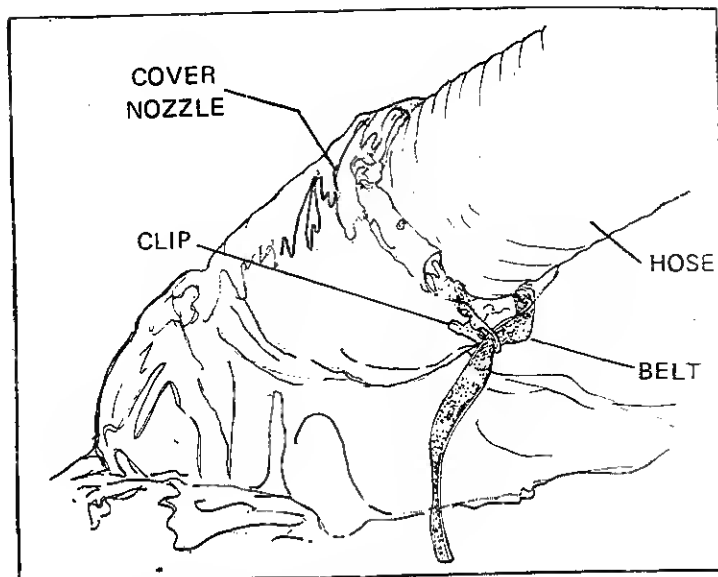


FIGURE 20

12. Insert hose in cover nozzle and tighten cover nozzle around hose with belt (Figure 20).